2011 Annual Operating Plan
Fire Weather Forecasts and Services
NWS Chicago/Romeoville

Updated 3/13/11 CMS

I. INTRODUCTION

The fire weather forecast and service program provides forecast, warning, and consultation services to local, state, and federal government agencies for the prevention, suppression, and management of forest and rangeland fires. The National Weather Service (NWS) Chicago/Romeoville will issue routine fire weather forecasts during the fall and spring seasons (see section 1 "Routine Fire Weather Services" for dates of each season) to support fire and land management activities. In addition to routine fire weather forecasts, NWS Chicago/Romeoville will issue spot (site-specific) forecasts using the guidelines in Section 3, under SITE SPECIFIC WILDLAND FIRE FORECASTS.

II. SERVICE AREA AND ORGANIZATIONAL DIRECTORY

NWS Chicago/Romeoville will issue routine forecasts for all 23 counties within its County Warning Area (CWA), during the spring and fall fire weather seasons. There are three federal users within the CWA; The Indiana Dunes National Lakeshore, the Midewin National Tallgrass Prairie and FermiLab. See appendices 1a through 1d for maps. The fire weather forecast (FWF) will have 23 individual groups, one for each county.

Following is a list of important contacts:

National Weather Service Chicago/Romeoville
Casey Sullivan (Fire Weather Program Manager)
Edward Fenelon (Meteorologist In Charge)
333 W. University Drive
Romeoville IL, 60446
(815) 834-0651 (24 hour Internal)
(815) 834-0645 (Fax)

FermiLab (DOE)
Dave Shemanske
PO Box 500 MS 320
Batavia, IL 60510
(630) 840-3303
(630) 399-6167 (Cell)
(630) 840-2108 (Fax)

Indiana Dunes National Lakeshore (NPS)
Dan Morford (Fire Management Officer)
(219) 395-8840; (219) 246-6965 (Cell)
Mary Lothschutz (AFMO)
(219) 395-1683; (219) 921-9814 (Cell)
Neal Mulconrey (219) 395-8420
1100 North Mineral Springs Road
Porter, IN 46304
(219) 395-1588 (Fax)

Midewin National Tallgrass Prairie
Jeff Martina (Fire Management Officer)
(815) 423-6370; (815) 922-2502 (Cell)
(AFMO) Vacant
30239 South State Route 53
Wilmington, IL 60481
(815) 423-6370/2136 (Office)
(815) 423-6376 (Fax)

Eastern Area Fire Weather Program Manager -EACC
Stephen Marien
Mississippi National River and Recreation Area
111 East Kellogg Blvd, Suite 105
St Paul, MN 55101
(651) 290-3030 Ext 229; (402) 250-7844 (Cell); (651) 290-3815 (Fax)

III. SERVICES PROVIDED BY THE NATIONAL WEATHER SERVICE

1) ROUTINE FIRE WEATHER SERVICES

Routine fire weather forecasts will be issued daily during the Spring and Fall fire seasons. The narrative fire weather forecast will be issued by 6 am, 1030 am and 4 pm central time and issued under the product ID CHIFWFLOT and updated as necessary. A National Fire Danger Rating System (NFDRS) forecast will be issued for the Bailley station (RAWS site) at the Indiana Dunes around 1pm local time daily during the fire seasons under the product ID CHIFWMLOT.

The Spring fire season will begin around March 1st and end around May 15th while the Fall fire weather season will begin around October 1st and end around December 15th. **These dates are flexible based on the needs of the fire agencies and current weather conditions.**

The fire weather forecasts are issued using GFE, after producing the proper grids for the fire weather forecasts. Both the FWFLOT and FWMLOT (NFDRS forecast) can be created and issued from GFE. Instructions to create these grids can be found in Appendix 4. See Appendix 5 for a detailed listing of the forecast elements in the NFDRS forecast. Fire and land managers can access the fire weather forecasts from the NWS Chicago/Romeoville internet site: http://www.crh.noaa.gov/lot/?n=firewx

The narrative fire weather forecast (FWFLOT) will include a discussion of storm systems, fronts, etc. with a focus on the first two days but including systems through day five of the forecast. The following specific elements will be forecast through the first 48 hours:

CLOUD COVER
PRECIP TYPE
CHANCE OF PRECIP
MAX TEMP (24HR TREND)
MIN RH (%)
MIN TEMP (24HR TREND)
MAX RH (%)
20 FT WIND AM (MPH)
20 FT WIND PM (MPH)
PEAK WIND GUSTS (MPH)
PRECIP AMOUNT (IN)
11 AM MIXING HGT (FT)
MAX MIXING HGT (FT)
1700 FT MIXING TEMP
TRANSPORT WND (KTS)
VENT RATE (KT-FT)
VENT RATE CATEGORY
HAINES INDEX

Beyond 48 hours, the narrative fire weather forecast will contain a general extended forecast for days 3 through 7. Included in the extended forecast will be winds at the 20 foot level). See appendix 2 for a FWFLOT template with all required elements and fields.

Certain headlines which are important for fire weather are included in the FWF. They include any heat advisories, watches or warnings; and high wind watches or warnings or wind advisories as well as fire weather watches and red flag warnings. No other headlines are included in the FWF.

The Ventilation Rate ("VENT RATE" in the FWF) is a dispersion variable that fire and land managers use to determine how well the atmosphere will carry away smoke. It is a simple multiplication of the transport wind speed times the mixing height (same as the inversion). For example, if the transport wind speed is 20 knots and the mixing height is 1,000 feet, the ventilation rate is 20,000 kt/ft. In the FWF, only the vent rate max (highest value for the 12 hour period) is included.

The scale for the ventilation rate and the corresponding descriptor (or category) is listed below. In the FWF, only the highest category (for the 12 hour period) is included. Knots can be converted to mph by multiplying by approximately 1.15. Mph can be converted to knots by multiplying by approximately 0.85.

Less than 40,000 knot/feet	Poor
40,000 to 60,000	Fair
60,000 to 100,000	Good
100,000 to 150,000	Very Good
150,000 or greater	Excellent

The 1700 foot mixing temp ("1700 FT MIXING TEMP" in the FWF) is the surface temperature needed to be reached for the mixing height to reach 1700 feet. For example, if the forecast 1700 foot mixing temperature is 70 degrees and the high temperature is expected to reach 80 degrees, the mixing height is expected to be near or passing through (rising) 1700 feet when the surface temperature reaches 70 degrees.

Conversely, if the 1700 foot mixing temperature is 70 degrees and the high temperature is only expected to reach 65 degrees, than the mixing height is not expected to reach 1700 feet and will be below 1700 feet for the entire day. It should be noted that these parameters are forecasts and may become unrepresentative if conditions change from the forecast(s).

2) SITE SPECIFIC WILDLAND FIRE FORECASTS

Spot (site-specific) forecasts will be issued under the following criteria:

A) To any agency for an ongoing wildfire.

B) Upon request of any federal official who represents that the spot forecast is required under the terms of the Interagency Agreement for Meteorological Services (NWS Instruction 10-406).

C) Upon request of any state, tribal, or local official who represents that the spot forecast is required to carry out their wildland fire management responsibilities in coordination with any federal land management agency participating in the Interagency Agreement for Meteorological Services (NWS Instruction 10-406).

D) Upon request of any public safety official who represents that the spot forecast is essential to public safety. A "public safety official" is an employee or contract agent of a government agency at any level (federal, state, local, tribal, etc.) charged with protecting the public from hazards including wildland fires of whatever origin and/or other hazards influenced by weather conditions such as hazardous material releases.

A spot forecast can be issued to any federal agency for a prescribed burn. However, spot forecasts can only be issued to non-federal agencies when the prescribed burn is essential to public safety or when federal resources are involved with the non-federal agency.

The requesting agency will provide a current weather observation at or near the location of the fire (an AWOS or ASOS can be used if representative). Spot forecasts should contain the same elements included in the routine narrative forecast as well as any additional elements needed by the requesting agency.

The requesting agency will submit a spot forecast request from our internet page at the following link: http://spot.nws.noaa.gov/cgi-bin/spot/spotmon?site=lot Instructions for fire and land managers to request a spot forecast can be found in Appendix 6. The forecaster will complete the forecast through GFE using the instructions in Appendix 7a. If the forecast cannot be completed through GFE, the forecast can still be completed on the internet page above. These instructions can be found in Appendix 7b.

The second way to request a spot forecast is for the requesting agency to fill out WS FORM D-1 (see last appendix). Once the requesting agency has filled out this form, they can fax a copy to our office and should call us to make sure we have received it. The forecasters can then use the spot forecast form (see Appendix 3) to complete the spot forecast. This form can be faxed back to the requesting agency or the forecast can be given over the phone.

During service backup (primary for NWS Lincoln, secondary for NWS Milwaukee), NWS Chicago/Romeoville will complete spot forecasts requests using GFE. Alerts for spot forecasts will need to be added to the AWIPS workstation's alarms (CHISTQILX for Lincoln and MKESTQMKX for Milwaukee). If the spot forecasts cannot be completed using GFE, they will be completed using the websites and instructions in Appendix 7b.

3) FIRE WEATHER WATCHES, RED FLAG WARNINGS

In coordination/collaboration with local, state, and federal fire managers, fire weather watches and red flag warnings will be issued for any or all counties within NWS Chicago/Romeoville CWA based on the following local criteria:

1) Sustained 20 foot winds of 20 mph or higher.

2) Afternoon relative humidity less than 25%.

3) 10 hour fuel moisture at 8% or less for one day.

All three criteria must be met (or expected to be met) for the issuance of a fire weather watch or red flag warning. Both products are issued under the same product ID, CHIRFWLOT. Fire weather watches and red flag warnings are issued year-round, not just during the fire seasons. They also are to be mentioned in the hazardous weather outlook.

Forecasters should contact fire managers before issuing a fire weather watch or red flag warning for two important reasons; first, to gain knowledge of current fuel moisture levels and second, a watch or warning places restrictions on fire management programs. Coordination should be two way and fire managers should also contact NWS Chicago/Romeoville when conditions are critically dry. See "LOT Supplement to NDS 10-401" for more information on fire weather watches and red flag warnings.

Fire weather watches and red flag warnings, when in effect, can be found at this link,

http://www.crh.noaa.gov/product.php?site=LOT&product=RFW&issuedby=LOT

IV. WILDLAND FIRE AGENCY RESPONSIBILITIES

The Indiana Dunes will maintain the Bailley weather station (a RAWS site) with telephone access so NWS Chicago/Romeoville can dial in and access current weather observations and issue the NFDRS (FWMLOT) forecast. Without access to a current weather observation, NWS Chicago/Romeoville can suspend issuance of the NDFRS forecast.

All fire agencies are required to provide a current weather observation for spot forecasts for both prescribed burns and ongoing wildland fires. They should provide as much information about the fire and location as possible. Fire agencies should provide feedback to NWS Chicago/Romeoville about positive and negative aspects of the fire weather forecasts and services. Fire and land managers should call NWS Chicago/Romeoville when fuels start or are expected to become critically dry. This information is very important when deciding to issue a fire weather watch or red flag warning.

V. JOINT RESPONSIBILITIES

NWS Chicago/Romeoville will have sole fire weather forecast and service responsibility for its 23 county warning area (CWA). NWS ILX (Lincoln, Illinois) will provide primary backup services and NWS MKX (Milwaukee) will provide secondary backup services if NWS Chicago/Romeoville cannot issue forecasts or other services.

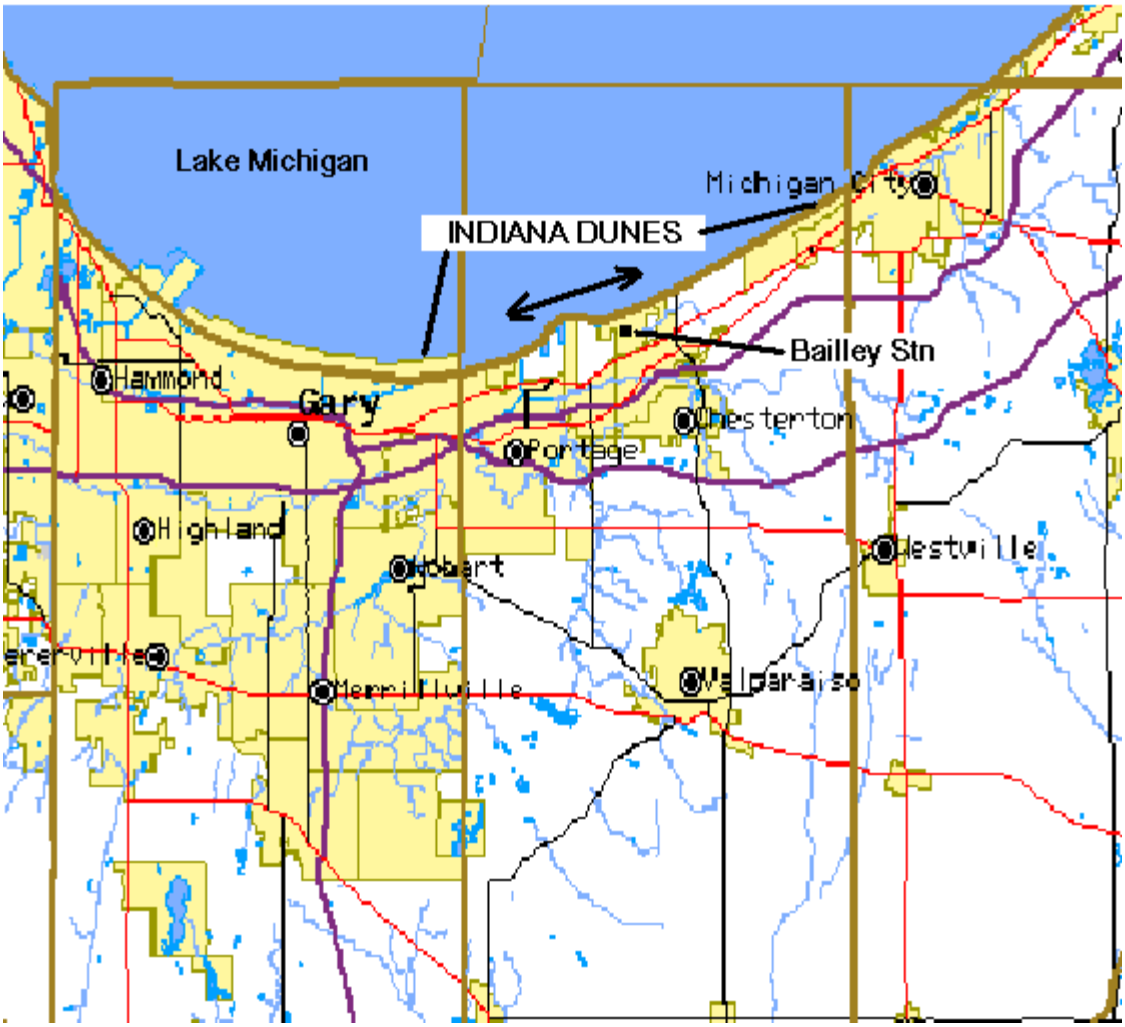
NWS Chicago/Romeoville provides primary service backup for NWS Lincoln (ILX) and secondary service backup for NWS Milwaukee (MKX). NWS Green Bay (GRB) provides primary service backup for NWS Milwaukee (MKX). See Service Backup Manual for more information.

Contacts for these offices:

National Weather Service Lincoln Illinois (ILX)
Pat Bak (Fire Weather Program Manager)
24 hour phone (to reach a forecaster) (217) 732-7489

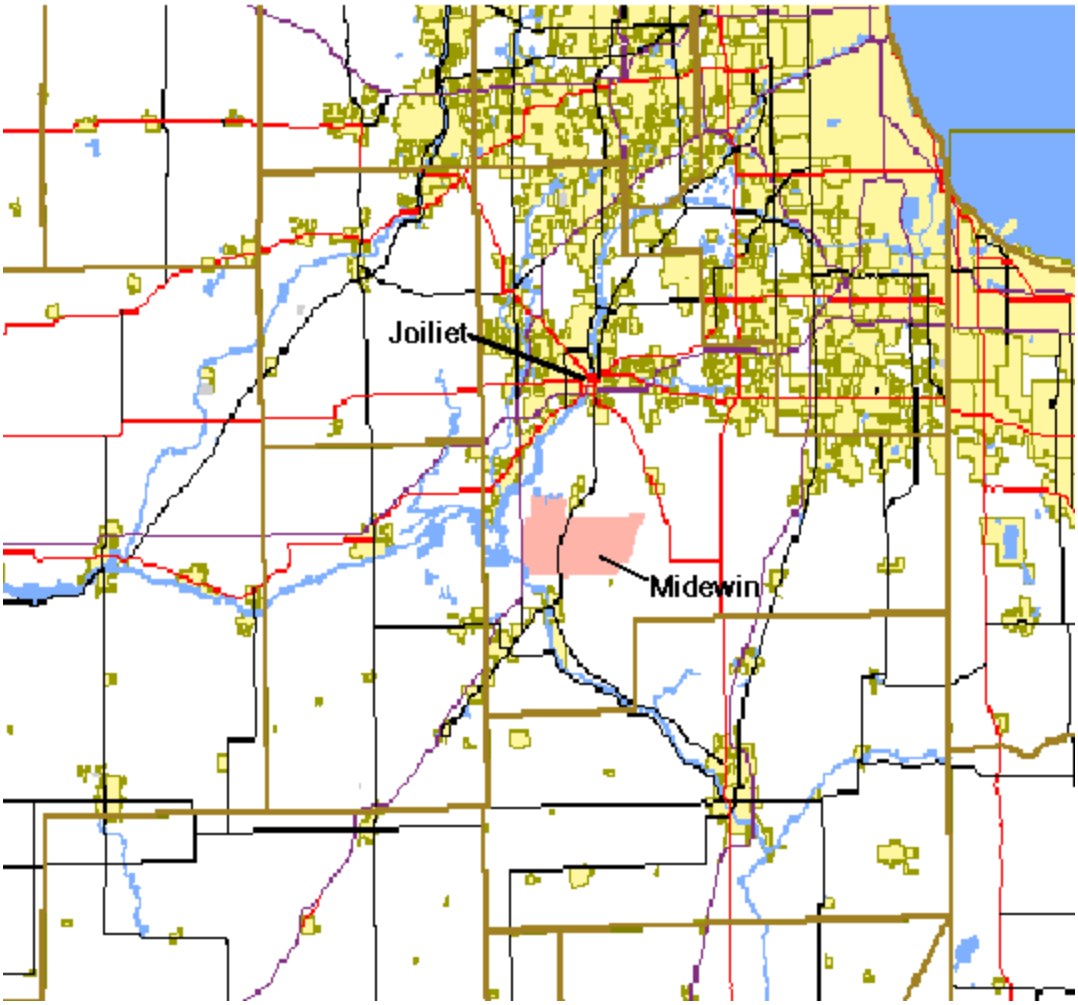
National Weather Service Milwaukee/Sullivan (MKX)
Mark Gehring (Fire Weather Program Manager)
24 hour phone (to reach a forecaster) (262) 965-5063

INDIANA DUNES NATIONAL LAKESHORE

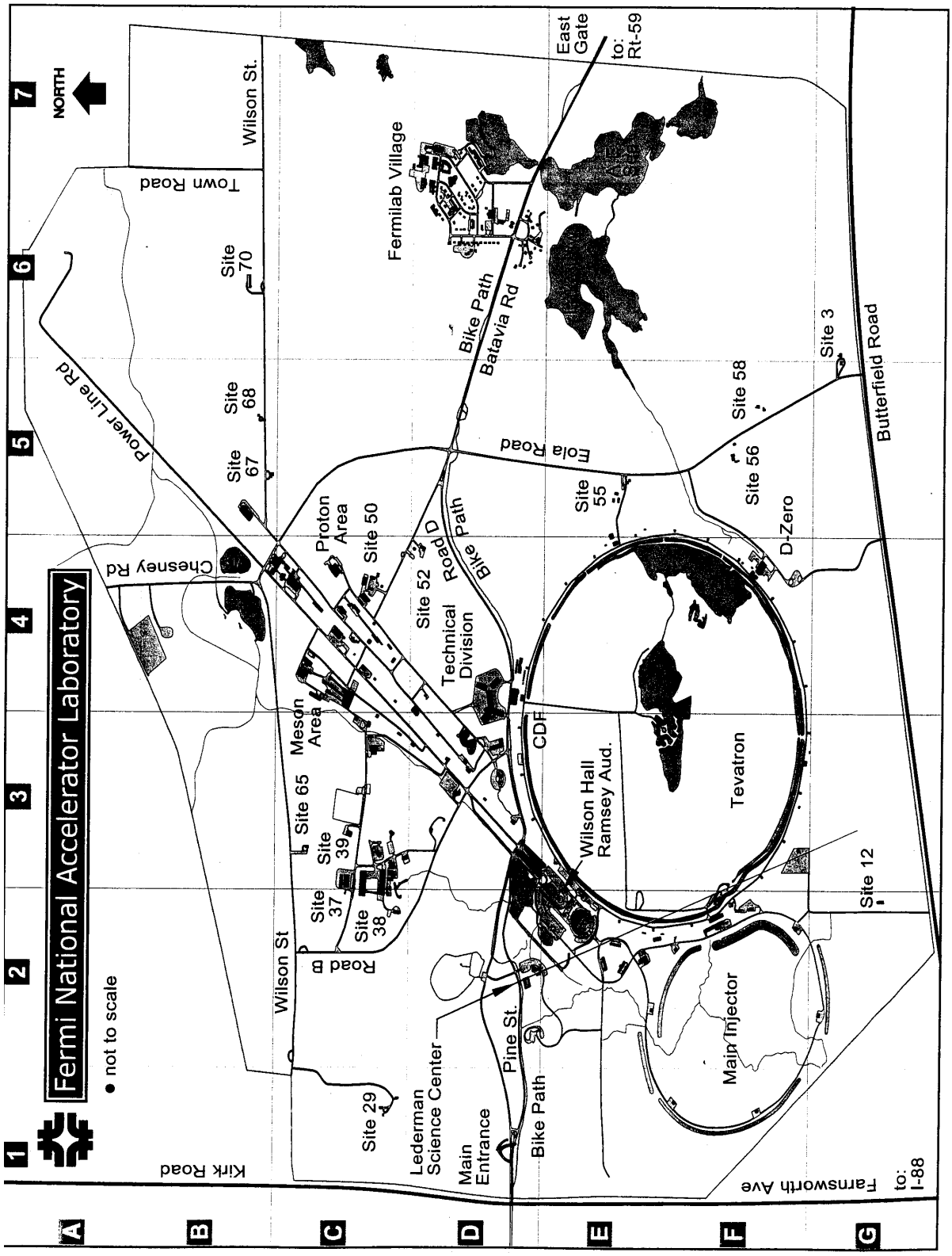


WFO Chicago Fire Weather Spot Forecast area..

MIDEWIN NATIONAL TALL GRASS PRAIRIE



Appendix 1b


Fermi National Accelerator Laboratory
not to scale
NORTH
Kirk Road
Wilson St.
Town Road
Power Line Rd
Chesney Rd
Site 70
Site 68
Site 67
Fermilab Village
East Gate
to: Rt-59
Bike Path
Batavia Rd
Fola Road
Site 3
Site 58
Site 56
Site 55
Butterfield Road
Proton Area
Site 50
Site 52
Road D
Bike Path
Technical Division
D-Zero
Meson Area
Site 65
Site 39
Site 37
Site 38
Road B
Wilson St
CDF
Wilson Hall
Ramsey Aud.
Tevatron
Site 12
Site 29
Lederman Science Center
Main Entrance
Pine St.
Bike Path
Main Injector
Farnsworth Ave
to: I-88
1
2
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4
5
6
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A
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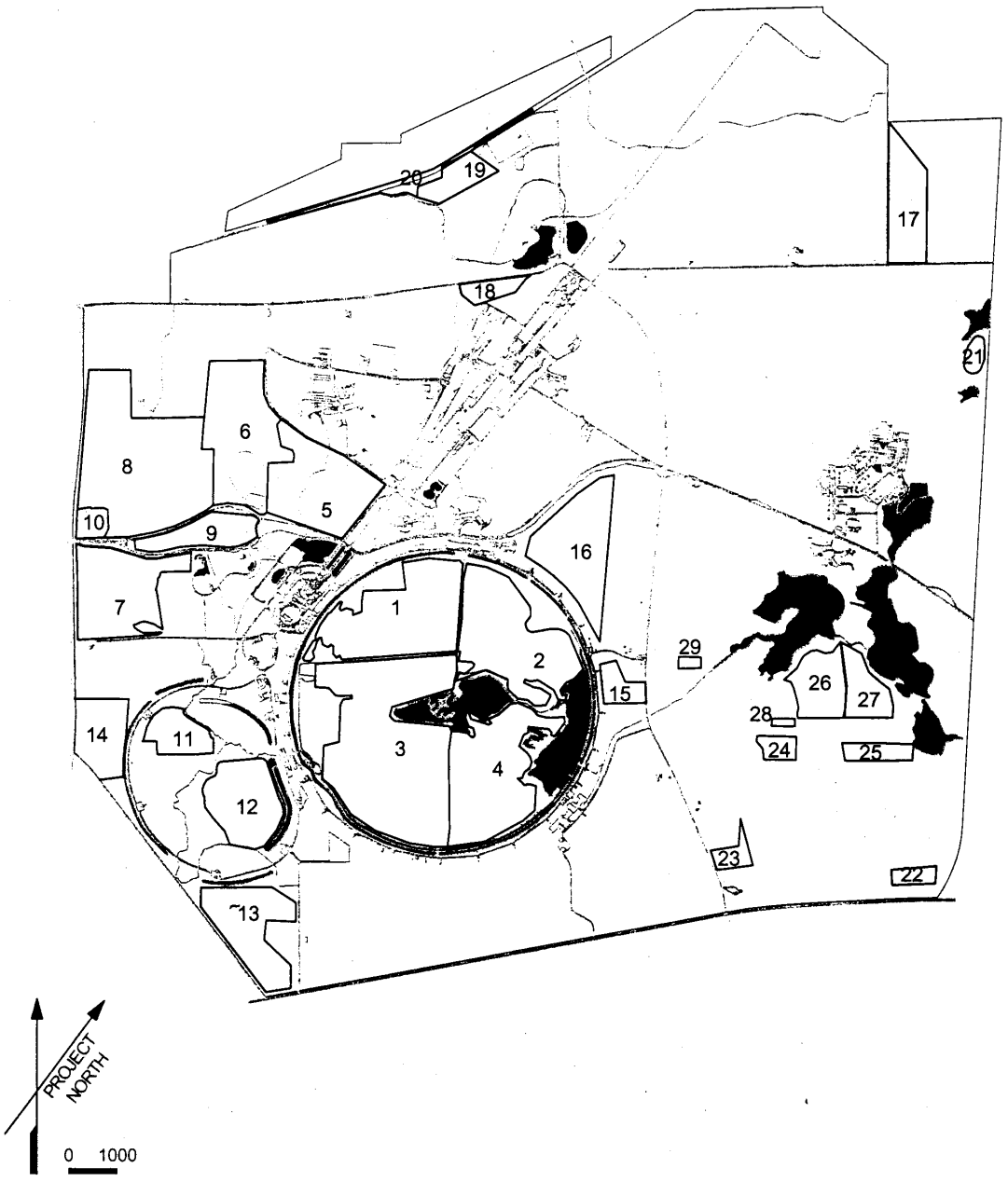
C
D
E
F
G

Appendix 1c



Fermilab Fire Management Areas

November 5, 2002

Appendix 1d

FIRE WEATHER PLANNING FORECAST FOR NORTHERN IL AND NORTHWEST IN
NATIONAL WEATHER SERVICE CHICAGO/ROMEOVILLE IL
600 AM CST TUE MAR 1 2011

...RED FLAG WARNING **OR** FIRE WEATHER WATCH HEADLINE **(LOCATION & TIME INCLUDED) (AS NEEDED)**...

.DISCUSSION... **(Manually added by forecaster)**

ILZ014-141030-
COOK-
INCLUDING THE CITIES…OF CHICAGO
600 AM CST TUE MAR 1 2011

...RED FLAG WARNING **OR** FIRE WEATHER WATCH HEADLINE **(LOCATION & TIME INCLUDED) (AS NEEDED)**...

	TONIGHT	WED	WED NIGHT	THU
CLOUD COVER				
PRECIP TYPE				
CHANCE OF PRECIP				
MAX TEMP (24HR TREND)				
MIN RH (%)				
MIN TEMP (24HR TREND)				
MAX RH (%)				
20 FT WIND AM (MPH)				
20 FT WIND PM (MPH)				
PEAK WIND GUSTS (MPH)				
PRECIP AMOUNT (IN)				
11 AM MIXING HGT (FT)				
MAX MIXING HGT (FT)				
1700 FT MIXING TEMP				
TRANSPORT WND (KTS)				
VENT RATE (KT-FT)				
VENT RATE CATEGORY				
HAINES INDEX				

.FORECAST FOR DAYS 3 THOUGH 7…
(WINDS ARE 20 FT LEVEL)

$$

PRESCRIBED BURN/SPOT WEATHER FORECAST

Date and Time Period of Burn_____

Location_____

Mixing Height_____ Feet AGL (must be at least 1600 for burns at Indiana Dunes and Midewin)

Transport wind speed _____ Knots (average wind speed in the mixed layer)

	Today	Tonight	Tomorrow
Max/Min Temp	_____	_____	_____
Min/Max RH	_____	_____	_____
Wind Speed (MPH)	_____	_____	_____
Wind Direction	_____	_____	_____
Cloud Cover	_____	_____	_____
Precipitation	_____	_____	_____

Remarks (especially concerning any wind shifts, fronts, etc.) _____

_____

_____

_____

_____

_____

Indiana Dunes
Fire Manager Cell
(219) 246-6965
Fax (219) 395-1588

Midewin
Fire Manager Cell
(815) 922-2502
Fax (815) 423-6376

FermiLab
Fire Manger Cell
(630) 399-6167
Fax (630) 840-2108

Fire Weather
Using IFPS/GFE

Creating the FWF

1) Change to Fire Weather Element Group,
   Click **Weather Elements Group >> FireWx**

2) Populate FireWx Grids
   Click **Populate >> PopulateFireWx**
   Check data to make sure it is reasonable and consistent

3) Save the Grids then Publish by **LEFT CLICKING ON GROUPS, SELECT FIREWX**

4) Create the FWF, **Products >> Formatter Launcher, then Products >> FWF** then **Run Formatter**.

5) QC the data, check to make sure there is no missing data, add the Discussion, then transmit.

Creating the FWM

1) Change to Fire Weather Element Group,
   Click **Weather Elements Group >> FireWX**

2) FireWx grids should be present from morning populating, if not, complete step 2 above. QC and/or update FireWx grids. Check thunderstorm data (if any) in the LAL grids.

3) Create the FWM, **Products >> Formatter Launcher, then Products >> FWM** then **Run Formatter**.

4) QC and transmit.

If the "Populate_Fire_Wx" script fails, the data can be manually populated from any of the model data. Make sure to publish the grids to official before creating the FWF or FWM.

NFDRS Code Example

FCST,120201,971127,13,1,45,65,1,1,NW,06,M,49,37,98,58,5,0,N

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12.

1. STATION NUMBER

2. VALID DATE AND TIME...valid date is the next day (YYMMDD) and time 1300CST/CDT

3. WEATHER....Single digit number from 0 to 9 where...

0 Clear (less than 1/10 sky cover)
1 Scattered Clouds (1/10th to 5/10ths of sky cloud covered)
2 Broken Clouds (6/10ths to 9/10ths of sky cloud covered)
3 Overcast (more than 9/10ths of sky cloud covered)
4 Foggy
5 Drizzle
6 Rain
7 Snow or Sleet
8 Showers (in sight or at station and reaching the ground)
9 Thunderstorms/Hail

4. TEMPERATURES... Temperature forecast (in Fahrenheit) for 1 pm CST/CDT the next day.

5. RELATIVE HUMIDITY... Relative Humidity forecast for 1 pm the next day.

6. LIGHTNING ACTIVITY

A. Period 1 (L1) is until midnight that night (an 11 hour period).
Period 2 (L2) is from midnight the night of the forecast until midnight the next night.

B. A single digit (1 through 6) is used. The meaning for each number is as follows:

1 No Thunderstorms
2 Few building Cumulus with isolated Thunderstorms
3 Much building Cumulus with sct Tstms, light to mod rain reaching the ground
4 Tstms common but do not obscure the sky, moderate rain reaches the ground
5 Tstms common and ocnly obscure the sky, mod to hvy rain reaching the ground
6 Same as 3 but dry, no rain

7. WIND DIRECTION AND SPEED... Wind fcst at 1 pm cst/cdt the next day (10 minute avg)

8. TEN HOUR TIME LAG FUEL MOISTURE

The gain or loss of moisture on fuels from 1/4 inch to 1 inch in diameter. Almost always will be "M" for moderate.

9. TEMPERATURE...24hr max/min temp (F) fcst fm 1pm the day of the fcst til 1pm next day

10. RELATIVE HUMIDITY...24hr max/min rh fcst fm 1pm the day of the fcst til 1pm next day

11. PRECIPITATION

The number of hours during a period when precipitation is forecast. Period 1 is from 1 pm the day of the forecast until 5 am the next day (16 hours). Period 2 runs from 5 am the next day until 1 pm that same day (8 hours).

12. WET FLAG

Wet flag is used to indicate "fuels wet". All indices will be forced to zero if "Y=yes" is used. NOTE, in most cases an "N=no" will be used unless there is snow on the ground or the ground is extremely wet.

Instructions for Fire and Land Managers to request an NWSSpot Internet spot forecast

1) To start, go to the following link from the NWS Chicago/Romeoville web page:

http://spot.nws.noaa.gov/cgi-bin/spot/spotmon?site=lot

2) Click on "Submit a new Spot Forecast."

3) Complete the request by filling in all known parameters. All parameters in red are REQUIRED for the spot forecast request. Use decimal form for the Lat/Lon.

4) Current weather observation(s) near or at the burn location are required for a spot forecast.

5) In the lower left, choose the weather elements needed and whether the forecast is for today, tonight or tomorrow (or all three). In the remarks section, include any important information that will assist the forecasters or any questions. For example, burn location is one mile from I-55; burn location is 3 blocks from Lake Michigan and a few hundred feet from residential homes.

6) When finished, click on "submit forecast." If any fields are left blank, another page will appear requesting the information. If the missing information is not required, the request can go through.

7) After submitting the spot forecast, the name of the request will show up on the web page in step 1. On the right, the status will show "pending." It will generally take the forecaster 30 to 45 minutes to complete the request. It may be helpful to call the NWS Chicago to make sure the forecaster has received the spot forecast request.

8) Once the spot forecast has been issued, the status will show "Completed". If "Question" appears, this means the forecaster has requested more information about the request. Once the status shows complete, click on complete, the spot forecast will appear.

Instructions for forecasters to complete an NWSSpot Internet Spot Forecast Request using GFE/Formatter Launcher

1) The spot forecast request will alarm in on the Public and Aviation AWIPS workstations as CHISTQLOT. (Alarms for CHISTQILX for NWS Lincoln and MKESTQMKX for NWS Milwaukee will need to be added to your workstation while in service backup).

2) Create/update (as needed) the fire weather grids and publish the grids.

3) Open the formatter launcher, select FWS, and click on the run formatter icon.

4) A "Select Spot Forecast Values" GUI pops up. Select the name of the spot forecast request you wish to complete. Select the product issuance time (select a time closest to the current time). Select your name, click on OK.

5) An "Input Info Values" GUI pops up. Click on OK.

6) The spot forecast will be generated in the formatter launcher. Type in a discussion on top of the forecast. Make sure to check the remarks section of the STQ (spot forecast request) and answer/address any questions in the discussion section of the spot forecast. Click on transmit.

7) Check the spot forecast internet page (link below) and verify it made it to the internet (this will take a couple of minutes). Once it's there, you are done.

http://spot.nws.noaa.gov/cgi-bin/spot/spotmon?site=lot

8) Please print a copy of the forecast and leave in focal point's mailbox.

Instructions for forecasters to complete an NWSSpot Internet Spot Forecast Request through the NWSSpot Webpage

1) The spot forecast request will alarm in on the Public and Aviation AWIPS workstations as CHISTQLOT. (Alarms for CHISTQILX for NWS Lincoln and MKESTQMKX for NWS Milwaukee will need to be added to your workstation while in service backup).

2) Go to the following webpage (also linked off of our fire weather page). Click on the name of the forecast that was alarmed (should say PENDING in the status column to the right).

Chicago/Romeoville (LOT) http://spot.nws.noaa.gov/cgi-bin/spot/spotmon?site=lot

Lincoln (ILX) http://spot.nws.noaa.gov/cgi-bin/spot/spotmon?site=ilx

Milwaukee (MKX) http://spot.nws.noaa.gov/cgi-bin/spot/spotmon?site=mkx

3) After you click on the name of the forecast, make sure there is a current observation and that it looks accurate.

4) Scroll down the page and click on "initialize forecast." This takes you to another page, click on the Initialize Forecast button to initialize the forecast.

5) Click on "edit forecast." Edit the forecast in the window and include all parameters that were requested. (Smoke dispersion refers to mixing height and transport winds).

6) Choose a duration the forecast will be valid for (above the edit area).

7) Save the edits.

8) Send the forecast. You will be prompted "Are you sure?"

9) Once the forecast has been sent, it will alert in on the Public and Aviation AWIPS workstations as CHIFWSLOT. The user that originally requested the forecast can now go back to the webpage above to get the completed spot forecast and the status will say "COMPLETED".

10) Please print a copy of the forecast and leave in focal point's mailbox.

WS FORM D-1
(1-2005)
(Supersedes Previous Editions)

SPOT REQUEST

(See reverse for instructions)

U.S. Department of Commerce
NOAA
National Weather Service

Please call the NWS Weather Forecast Office (WFO) when submitting a request and also after you receive a forecast to ensure request and forecast were received.
Please provide feedback to WFO on forecast.

1. Time†	2. Date	3. Name of Incident or Project	4. Requesting Agency

5. Requesting Official	6. Phone Number	7. Fax Number	8. Contact Person

9. Ignition/Incident Time and Date

10. Size (Acres)

11. Type of Incident
- ☐ Wildfire
- ☐ Prescribed Fire
- ☐ Wildland Fire Use (WFU)
- ☐ HAZMAT
- ☐ Search And Rescue (SAR)

12. Reason for Spot Request (choose one only)
- ○ **Wildfire**
- ○ **Non-Wildfire** Under the Interagency Agreement for Meteorological Services (USFS, BLM, NPS, USFWS, BIA)
- ○ **Non-Wildfire** State, tribal or local fire agency working in coordination with a federal participant in the Interagency Agreement for Meteorological Services
- ○ **Non-Wildfire** Essential to public safety, e.g. due to the proximity of population centers or critical infrastructure.

13. Latitude/Longitude:

14. Elevation (ft, Mean Sea Level)
Top: **Bottom:**

15. Drainage

16. Aspect

17. Sheltering
- ☐ Full
- ☐ Partial
- ☐ Unsheltered

18. Fuel Type: __Grass __Brush __Timber __Slash __Grass/Timber Understory __Other_____
Fuel Model: 1,2,3 4,5,6,7 8,9,10 11,12,13 2,5,8

19. Location and name of nearest weather observing station (distance & direction from project):

20. Weather Observations from project or nearby station(s): (Winds should be in compass direction e.g. N, NW, etc.)

Place	Elevation	†Ob Time	20 ft. Wind		Eye Level Wind.		Temp.		Moisture		Remarks *(Relevant Weather, etc)*
			Dir	Speed	Dir	Speed	Dry	Wet	RH	DP	

21. Requested Forecast Period Date

Start _____

End _____

Forecast needed for:
- ☐ Today
- ☐ Tonight
- ☐ Day 2
- ☐ Extended

22. Primary Forecast Elements (Check all that are needed) ***(for management ignited wildland fires, provide prescription parameters):***

	Needed:
Sky/Weather	☐
Temperature	☐
Humidity	☐
20 ft Wind	☐
Valley	☐
Ridge Top	☐
Other (Specify in #23)	☐

23. Remarks (other needed forecast elements, forecast needed for specific time, etc.)

24. Send Forecast to:
ATTN:

25. Location:

26. Phone Number:
Fax Number:

27. Remarks (Special requests, incident details, Smoke Dispersion elements needed, etc.):

EXPLANATION OF SYMBOLS: † Use 24-hour clock to indicate time. Example: 10:15 p.m. = 2215; 10:15 a.m. = 1015
Indicate local standard time or local daylight time

WS FORM D-1, January 2005 INSTRUCTIONS:

I. Incident Personnel:

1. Complete items 1 through 27 where applicable.
   a. Example of weather conditions on site:

13. Weather Observations from project or nearby station(s):											
Place	Elevation	†Ob Time	20 ft. Wind		Eye Level Wind.		Temp.		Moisture		Remarks *(Relevant Weather, etc.)*
			Dir	Speed	Dir	Speed	Dry	Wet	RH	DP	
Unit G-50	1530'	0830	NW	6-8	NW	3-5	32		72		Observations from unit RAWS station, 50% cloud cover.

   b. If the incident (HAZMAT, SAR) involves marine, put the wave/swell height and direction in the Remarks section.

2. Transmit in numerical sequence or fax to the appropriate Weather Forecast Office. (A weather forecaster on duty will complete the special forecast as quickly as possible and transmit the forecast and outlook to you by the method requested)
3. Retain completed copy for your records.
4. **Provide feedback to NWS utilizing separate page.** Be sure to include a copy of the spot forecast with any feedback submission including forecaster's name. Feedback to NWS personnel is imperative to assist with future forecasts. Remember, feedback on correct forecasts is equally as valuable as feedback on incorrect forecasts! If spot forecast is significantly different than conditions on site, a second forecast may be required.

II. ALL RELAY POINTS should use this form to insure completeness of date and forecast. A supply of this form should be kept by each dispatcher and all others who may be relaying requests for forecasts or relaying completed forecasts to field units.

III. Forms are available from your local National Weather Service Weather Forecast Office. They may also be reproduced by other agencies as needed, entering the phone number and radio identification if desired.

NOTICE: Information provided on this form may be used by the National Weather Service for official purposes in any way, including public release and publication in NWS products. False statements on this form may be subject to prosecution under the False Statement Accountability Act of 1996 (18 U.S.C. § 1001) or other statutes.